



Department of Energy
Washington, DC 20585



June 23, 2004

The Honorable Bill Richardson
Governor, State of New Mexico
State Capitol
Room 400
Santa Fe, New Mexico 87501



Dear Governor Richardson:

Enclosed is the Department of Energy's (DOE) revision to the Record of Decision (ROD) for its Waste Management Program: Treatment and Storage of Transuranic Waste prepared pursuant to the *Waste Management Programmatic Environmental Impact Statement* (WM PEIS, DOE/EIS-0200-F, May 1997).

This revision, based on consideration of new information, confirms DOE's September 6, 2002, decision to ship its transuranic (TRU) waste from the West Jefferson North Site (West Jefferson Site) in Columbus, Ohio, to the Hanford Site near Richland, Washington, for storage, processing, and certification, pending disposal at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico.

If you have further questions, please contact me at (202) 586-7709 or have your staff contact Mr. Rick A. Dearborn, Assistant Secretary for Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Jessie Hill Roberson
Assistant Secretary for
Environmental Management

Enclosure



DEPARTMENT OF ENERGY

**Revision to the Record of Decision for the Department of Energy's
Waste Management Program: Treatment and Storage of Transuranic Waste**

AGENCY: Department of Energy.

ACTION: Revision to Record of Decision.

SUMMARY: The Department of Energy (DOE) is revising the Record of Decision (ROD) for its Waste Management Program: Treatment and Storage of Transuranic Waste prepared pursuant to the *Waste Management Programmatic Environmental Impact Statement* (WM PEIS, DOE/EIS-0200-F, May 1997). The original ROD was issued on January 20, 1998 (63 FR 3629), and revised on December 19, 2000 (65 FR 82985), July 13, 2001 (66 FR 38646), and September 6, 2002 (67 FR 56989). This present revision, based on consideration of new information, confirms DOE's September 6, 2002, decision to ship its transuranic (TRU) waste from the Battelle West Jefferson North Site (West Jefferson Site) in Columbus, Ohio, to the Hanford Site near Richland, Washington, for storage, processing, and certification, pending disposal at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico.

In its September 6, 2002, decision, DOE stated that it would transfer small quantities of TRU waste from the West Jefferson Site (approximately 27 cubic meters), and the Energy Technology Engineering Center (ETEC) (approximately 9 cubic meters) in Canoga Park, California, to the Hanford Site for storage. The TRU waste would be shipped to Hanford from both sites in Type B truck-mounted shipping casks licensed by the U.S. Nuclear Regulatory Commission (NRC) and ultimately shipped to WIPP.

After issuing its September 6, 2002, decision, DOE completed the ETEC shipments and three shipments of the West Jefferson TRU waste (about five cubic meters) to Hanford. In March 2003, DOE suspended further shipments of West Jefferson TRU waste to Hanford, and subsequently a preliminary injunction stopping further shipments of TRU waste to Hanford from West Jefferson was issued by the U.S. District Court for the Eastern District of Washington in response to actions filed by the State of Washington and Columbia Riverkeeper. Shipments of TRU waste to Hanford for storage and certification for disposal at WIPP have remained suspended pending completion of the *Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement* (HSW EIS, DOE/EIS-0286) and lifting of the preliminary injunction. DOE completed the Final HSW EIS in January 2004, and the U.S. Environmental Protection Agency (EPA) published a Notice of Availability of the HSW EIS on February 13, 2004. In the HSW EIS, DOE analyzed site-specific impacts at Hanford associated with storage, processing, and certification of the West Jefferson and other TRU waste and, using the most recent census data (Year 2000) and an updated version of the RADTRAN computer model, DOE analyzed transportation impacts of shipping this waste. The analyses conducted in the HSW EIS confirmed conclusions previously reached in the WM PEIS. That is, the impacts of transporting the West Jefferson TRU waste to Hanford and the onsite impacts of storing, certifying, and processing this waste for shipment to WIPP are small.

Based on the new information in the HSW EIS, as well as the information on which DOE's September 6, 2002, decision was based, DOE intends to complete the transfer

of the West Jefferson TRU waste to Hanford for storage and certification prior to disposal at WIPP. The remaining shipments will not commence unless and until the preliminary injunction issued by the U.S. District Court for the Eastern District of Washington is lifted.

ADDRESSES: Copies of the documents referenced herein are available from the:

Center for Environmental Management Information
P.O. Box 23769
Washington, DC 20026-3769
Telephone: 1-800-736-3282 (in Washington, DC: 202-863-5084).

The Final HSW EIS and other relevant information can also be viewed in the

DOE Public Reading Room
Washington State University, Tri-Cities Campus
100 Sprout Road, Room 130W
Richland, WA 99352
Telephone: 509-376-8583
Monday-Friday, 10:00 a.m. to 4:00 p.m.

The Final HSW EIS is available for review on the Internet at

<http://www.hanford.gov/eis/eis-0286D2> and on the DOE National Environmental Policy Act (NEPA) Web page (<http://www.eh.doe.gov/nepa/eis/eis0286F>).

FOR FURTHER INFORMATION: For copies of the Final HSW EIS and further information about the HSW EIS, contact:

Mr. Michael Collins, Document Manager
U.S. Department of Energy, Richland Operations Office
P.O. Box 550, A6-38
Richland, WA 99352
Telephone: 509-376-6536.

For further information on the disposal of TRU waste at WIPP, contact:

Mr. Harold Johnson
U.S. Department of Energy
Carlsbad Field Office
P.O. Box 3093
Carlsbad, NM 88221
Telephone: 505-234-7349.

For further information on Hanford Site TRU waste operations, contact:

Mr. Mark French
U.S. Department of Energy, Richland Operations Office
P.O. Box 550, MSIN A6-38
Richland, WA 99352
Telephone: 509-373-9863.

For information on DOE's NEPA process, contact:

Ms. Carol Borgstrom
Director, Office of NEPA Policy and Compliance (EH-42)
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
Telephone 202-586-4600, or leave a message at 1-800-472-2756.

SUPPLEMENTARY INFORMATION:

I. Background

TRU waste is waste that contains alpha particle-emitting radionuclides with atomic numbers greater than that of uranium (92) and half-lives greater than 20 years in

concentrations greater than 100 nanocuries per gram. TRU waste is classified according to the radiation dose at a package surface. Contact-handled (CH) TRU waste has a radiation dose rate at a package surface of 200 millirem per hour or less; direct contact with this waste can be made safely by workers. Remote-handled (RH) TRU waste has a radiation dose rate at a package surface greater than 200 millirem per hour, and must be handled remotely (e.g., with machinery designed to shield workers from radiation).

West Jefferson performed atomic energy research and development for DOE as part of the government's fuel and target fabrication programs from 1943 – 1986.

DOE is contractually responsible for the disposal of CH- and RH-TRU waste generated as part of the cleanup of the West Jefferson Site. This waste consists of sample residues, analytical equipment, and hot cell fixtures that became contaminated during several decades of metallurgical and nuclear fuel research. As part of the closeout of its nuclear materials research contract, DOE is assisting in the remediation of the site. Although the West Jefferson facilities are privately owned, contract terms specify that all radioactive waste generated during the site cleanup is "DOE-owned" for the purposes of disposal.

In the WM PEIS, prepared under the NEPA implementing regulations (40 CFR 1500-1508 and 10 CFR 1021), DOE evaluated the potential environmental impacts of treating and storing TRU waste at DOE generator sites and at DOE sites such as Hanford, where this waste could be consolidated on a regional or centralized basis. In the WM PEIS TRU Waste ROD (63 FR 3629, January 20, 1998), DOE selected the Decentralized Alternative, stating that "each of the Department's sites that currently has or will generate TRU waste

will prepare and store its waste on site" prior to shipment to WIPP.¹ The WM PEIS TRU Waste ROD also noted that "in the future, the Department may decide to ship transuranic wastes from sites where it may be impractical to prepare them for disposal to sites where DOE has or will have the necessary capability." The WM PEIS TRU Waste ROD stated that the sites that could receive TRU waste shipments from other sites were the Idaho National Engineering and Environmental Laboratory, the Oak Ridge Reservation, the Savannah River Site, and the Hanford Site, and that such decisions would be subject to appropriate review under NEPA.

In its September 6, 2002, decision, DOE identified approximately 115 55-gallon drums of RH-TRU waste (about 25 cubic meters) and approximately 10 drums of CH-TRU waste (about two cubic meters) for transfer from West Jefferson to Hanford. In that decision, based on the analysis contained in the WM PEIS and earlier analysis in of such shipments in the Environmental Assessment for Battelle Columbus Laboratories Decommissioning Project (DOE/EA-0433, June 1990),

DOE concluded that the potential health and environmental impacts of shipping a total of approximately 27 cubic meters of TRU waste from West Jefferson to Hanford for storage and future certification for disposal at WIPP would be very small. Since that time, 20 drums of the previously-identified RH-TRU waste (about five cubic meters) have been transferred to Hanford, and through the

¹ The only exception to this decision was the Sandia National Laboratory in New Mexico, which will ship its TRU waste to the Los Alamos National Laboratory for storage and processing before disposal at WIPP.

decommissioning process, and DOE has generated an additional 20 drums of RH-TRU waste at West Jefferson (also about five cubic meters) Thus about 25 cubic meters of RH-TRU waste remain at West Jefferson. An additional 10 cubic meters of CH-TRU waste was also generated through the decommissioning process, bringing the total remaining CH-TRU waste at West Jefferson to approximately 12 cubic meters. This waste has been packaged into six standard waste boxes. All of the TRU waste (totaling approximately 37 cubic meters) was moved from the site's hot cell building to an onsite shielded area for temporary storage in order for decontamination and demolition of the hot cell building to proceed.² DOE does not believe that additional TRU waste will be generated at the West Jefferson site.

In March 2003, DOE suspended further shipments of West Jefferson TRU waste to Hanford, and subsequently a preliminary injunction stopping further shipments of TRU waste to Hanford was issued by the U.S. District Court for the Eastern District of Washington in response to actions filed by the State of Washington and Columbia Riverkeeper (Nos. CT-03-5018AAM and CT-03-5044AAM). Shipments of TRU waste from West Jefferson to Hanford for storage and future certification for disposal at WIPP have remained suspended pending completion of the HSW EIS and lifting of the preliminary injunction.

² In that same ROD, DOE also decided to transfer approximately 9 cubic meters of waste from ETEC to Hanford. Due to DOE repackaging, the actual volume of TRU waste shipped was approximately 4 cubic meters. DOE completed those shipments in December 2002.

DOE completed the Final HSW EIS in January 2004, and EPA published a Notice of Availability of the HSW EIS on February 13, 2004 (69 FR 7215). In the HSW EIS, DOE analyzed site specific impacts at Hanford associated with storage, processing, and certification of the West Jefferson and other TRU waste, and, using the most recent census data (Year 2000) and an updated version of the RADTRAN computer model, analyzed transportation impacts of shipping this waste. The analyses conducted in the HSW EIS confirmed conclusions previously reached by the WM PEIS and the *WIPP Disposal Phase Supplemental EIS-II* (WIPP-SEIS-II, DOE/EIS-0026-S-2, September 1997), which supported DOE's September 6, 2002, decision. These multiple NEPA reviews show that the impacts of transporting the West Jefferson TRU waste to Hanford, and the onsite impacts of storing, certifying, and processing this waste for shipment to WIPP are small.

In the WIPP SEIS II ROD, based on the analysis in the WIPP SEIS II, DOE decided to dispose of up to 175,600 cubic meters of TRU waste generated from defense activities, including waste from the Battelle West Jefferson site, at WIPP. The Department reaffirmed that decision in the September 6, 2001 revision to the WMPEIS ROD with respect to the Battelle waste when it decided to transfer this waste to Hanford pursuant to that revision.

Section 9(a)(1)(H) of the WIPP Land Withdrawal Act exempts mixed TRU waste designated for disposal at WIPP from certain provisions of the Solid Waste Disposal Act, 42 U.S.C. § 6901 *et seq.*:

With respect to transuranic mixed waste designated by the Secretary for disposal at WIPP, such waste is exempt from treatment standards promulgated pursuant to section 3004(m) of the Solid Waste Disposal Act (42 U.S.C. 6924(m)) and shall not be subject to the land disposal prohibitions in section 3004(d), (e), (f) and (g) of the Solid Waste Disposal Act.

WIPP Land Withdrawal Act Amendments, Public Law No. 104-201, 110 Stat. 2422 (September 23, 1996), 3188(a) at Stat. 2853. In this ROD, the Department confirms its prior designation of the mixed TRU waste at West Jefferson for disposal at WIPP in the WIPP SEIS II ROD and the September 2002 revision to the WM PEIS ROD.

EPA has approved DOE's implementation plans to characterize defense-related RH-TRU waste for disposal at WIPP. DOE is still awaiting approval of its RH waste analysis plan. DOE anticipates that WIPP will begin disposal of RH-TRU waste in the 2006 time frame. For the reasons explained in the Department's *Revised Record of Decision for the Department of Energy's Waste Isolation Pilot Plant Disposal Phase*, issued concurrently with this ROD, the need for additional regulatory approval that DOE is actively seeking and reasonably expects to be able to obtain is not an obstacle to designation of this waste under section 9(a)(1)(H) of the WIPP Land Withdrawal Act.

II. Decision

DOE intends to complete the action stated in its September 6, 2002, ROD and ship the TRU waste currently stored at the West Jefferson Site in Columbus, Ohio, to the Hanford Site in Richland, Washington. This waste consists of approximately 115 drums (about 25 cubic meters) of RH-TRU waste and 6 standard waste boxes (about 12 cubic meters) of CH-TRU waste. DOE intends to transfer the RH-TRU waste in approximately 14 shipments using truck-mounted, Type B shipping containers licensed by the NRC, and the CH waste in one shipment, also in NRC-licensed, truck-mounted Type B containers.

At Hanford, DOE will store the West Jefferson RH-TRU in shielded containers at solid (radioactive and mixed) waste management facilities located in the 200 West Area of the site until this waste can be accepted at WIPP. West Jefferson CH-TRU waste will be assayed at Hanford, and any fraction determined to be low-level waste (LLW) will be disposed of at Hanford in lined trenches.³ West Jefferson is currently an approved generator site for disposal of LLW at Hanford.

³ Concurrently with the issuance of this ROD, DOE is issuing a ROD under the HSW EIS (Record of Decision for the Solid Waste Program, Hanford Site, Richland, Washington: Storage and Treatment of Low-Level Waste and Mixed Low-Level Waste; Disposal of Low-Level Waste, Mixed Low-Level Waste, and Immobilized Low Activity Waste; and Storage, Processing, and Certification of Transuranic Waste for Shipment to the Waste Isolation Pilot Plant). DOE's decisions for onsite LLW disposal at Hanford include a requirement to dispose of such waste in lined trenches.

The remaining fraction would be CH-TRU waste, which would be packaged and certified to meet the WIPP Waste Acceptance Criteria, and ultimately shipped to WIPP for disposal.

III. Basis for the Decision

DOE needs to ship its TRU waste from the West Jefferson site in order to complete the cleanup of contaminated facilities at this site in a timely manner. The TRU waste is predominantly RH-TRU waste, which cannot presently be accepted at WIPP for disposal.

Continued storage of the TRU waste on the West Jefferson Site until WIPP is ready to receive the RH-TRU waste (estimated to be in the 2006 time frame) may require construction of a new, shielded facility licensed by the State of Ohio and the NRC.

Construction of a new facility could not be completed by the West Jefferson scheduled closure date of December 2005. Also, building a new facility would divert funding away from necessary clean-up activities, be inconsistent with DOE's goal of early removal of radioactive waste from privately owned sites, and result in additional costs for decontaminating and decommissioning the storage building. DOE thus needs to ship the TRU waste to another DOE site that has the requisite remote-handling and storage capabilities. In addition, DOE needs to ship the West Jefferson CH-TRU waste to a DOE site having the capabilities to process and certify CH-TRU waste for WIPP in order to avoid the cost required to establish such capability at West Jefferson, particularly for such a small waste volume.

The Hanford Site, located in Washington State near Richland, has an established radioactive waste management capability in the central plateau (200 Area) of the 586-square mile (1,520-square kilometer) reservation. DOE's Hanford Site offers a practical, safe, and secure location for storing the TRU waste from West Jefferson. Hanford is certifying and shipping CH-TRU waste according to WIPP's Waste Acceptance Criteria and applicable state and federal regulations. RH- and CH-TRU waste have been, are being, and will be managed at Hanford, which has trained waste management personnel and storage capacity for TRU waste at waste management facilities located in the 200 Area of the site. The Hanford Site's planning for facilities and operations to characterize, certify and package RH-TRU waste is also well underway.⁴

The potential health and environmental impacts of this decision would be small. The HSW EIS included an updated route-specific transportation analysis of potential low-level waste, mixed low-level waste, and TRU waste shipments using Year 2000 census data and an updated version of the RADTRAN computer code to calculate potential risks associated with shipping. This analysis included the route-specific impacts of transporting the West Jefferson TRU waste to Hanford and subsequent shipment of this waste to WIPP. Due to the additional TRU waste generated and identified at West Jefferson subsequent to DOE's September 6, 2002, decision, DOE's currently estimated total number of 18 shipments (3 completed RH-TRU waste shipments, 14

⁴ The Hanford Solid Waste EIS analyzed construction of new and modification of existing facilities to characterize and prepare RH-TRU waste at the Hanford Site.

remaining RH-TRU waste shipments, and 1 remaining CH-TRU waste shipment) exceeds DOE's prior estimate of total shipments by 3. However, the currently estimated number of shipments is within the number of shipments analyzed for the West Jefferson TRU waste in the HSW EIS (29 shipments of RH-TRU waste and 1 shipment of CH-TRU waste).

The HSW EIS also analyzed potential onsite impacts at Hanford of storage, certification, and processing of TRU waste for shipment to WIPP, including TRU waste from Hanford and offsite generators such as West Jefferson. The potential health and environmental impacts of shipping the West Jefferson TRU waste to Hanford and managing the waste there until it can be shipped to WIPP for disposal are consistent with the results presented in the WM PEIS and WIPP SEIS-II, which supported DOE's prior decision regarding the West Jefferson TRU waste.

For the reasons stated above and for the reasons stated in the September 6, 2002, revision to the WM PEIS, DOE is confirming its September 6, 2002, decision and will transfer the remaining TRU waste from West Jefferson to Hanford for storage and certification, pending shipment to WIPP for disposal once the preliminary injunction issued by the U.S. District Court for the Eastern District of Washington is lifted.

Issued in Washington, DC, this 23 day of June, 2004.

A handwritten signature in cursive script, appearing to read "Jessie Hill Roberson", with a long horizontal flourish extending to the right.

Jessie Hill Roberson
Assistant Secretary for Environmental Management.